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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/728,334	12/04/2003	Hiroyuki Sumi	AD6932USNA	7389

23906 7590 06/21/2006

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WILMINGTON, DE 19805

EXAMINER
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SASTRI, SATYA B

ART UNIT	PAPER NUMBER
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1713

DATE MAILED: 06/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/728,334

Applicant(s)

SUMI ET AL.

Examiner

Satya B. Sastri

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 May 2006.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-16 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This action is in response to applicant's amendment filed on May 4, 2006. *Claims 1-16* are now pending in the application.
2. Applicants' arguments have been fully considered but not found persuasive and therefore, the rejection of *claims 1-16* under 35 U.S.C. 103(a) as being unpatentable over Harashina et al. (WO 01/48086) in view of Takahashi et al. (US 4,742,109) is sustained. All other objections and rejections have been rendered moot by the amendment filed on May 4, 2006.

### ***Response to Arguments***

3. Applicants' argue that there is no hint given in the disclosure of either reference that the combination of thermoplastic polyester, phosphorous-containing flame retardant, phenolic polymer, thermoplastic acrylic resin would lead to a composition that is flame retardant, impact resistant and laser weldable. It is noted that the primary reference to Harashina discloses polyethylene terephthalate and polybutylene terephthalate compositions with flame retardant composition comprising phosphazene compound and phenolic resin. The disclosure explicitly teaches that such a flame retardant composition is useful to impart high flame retardancy without deteriorating mechanical properties (abstract, column 3, lines 59-67).

The secondary reference also discloses polybutylene terephthalate compositions comprising a polyacrylate and a silane coupling agent so as to improve the impact resistance and

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elongation. The secondary reference explicitly teaches that addition of a flame retardant to polybutylene terephthalate will result in a decrease in impact resistance and such an adverse effect can be rectified by adding a modifier consisting of polyacrylate and a silane coupling agent (column 3, lines 10-42). Given that the instant claim language recites the transitional phrase “comprising”, it does not exclude silane coupling agents in the composition.

As stated in the office rejection, it would have been obvious to combine the two references for the purpose of maintaining good mechanical and flame retardant properties of polybutylene terephthalate compositions. It is the examiner’s position that properties that such as flame retardance, impact resistance and laser weldability, are all intrinsic to the composition that would inherently be present in the composition resulting from the combined teachings of the two references. In essence, the primary reference teaches adding phenolic resin to maintain the mechanical properties while the secondary reference teaches addition of a polyacrylate and a silane coupling agent for the same purpose. It is well settled that it is *prima facie* obvious to combine two ingredients, each of which is targeted by the prior art to be useful for the same purpose. *In re Lindner* 457 F.2d 506, 509, 173 USPQ 356, 359 (CCPA 1972). Also, case law holds that “it is *prima facie* obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining them flows logically from their having been individually taught in the prior art.” *In re Kerkhoven*, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980).

***Action Is Final***

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

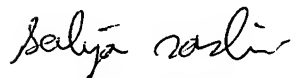
***Future Correspondence***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Satya Sastri whose telephone number is 571-272-1112.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on 571-272-1114. The fax phone numbers for the organization where this application or proceeding is assigned is (571) 273-8300 for regular communications. The unofficial direct fax phone number to the Examiner's desk is 571-273-1112.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



SATYA SASTRI

June 16, 2006



DAVID W. WU  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700